

Significant Figures – Another Worksheet

1. Give the number of significant figures in each of the following.

a) 10.0005 g _____

b) 0.003423 mm _____

c) 2900 ± 100 ft _____

d) 8.9×10^5 L _____

2. Determine the answer for each of the following. Be sure to use the correct number of significant figures.

a) 27.34
6.90
+ 13.124

b) 2.8023
- 4.762

c) $0.32 \times 14.50 \times 120 =$

d) $24.1 / 0.005 =$

3. Round each of the following to 3 significant figures.

707.5 _____

2,300.2 _____

0.0003350 _____

10.26730 _____

18.95×10^{21} _____

4. Convert each of the following into correct scientific notation.

1747 _____

0.00000984 _____

3200.0×10^2 _____

0.002014×10^2 _____

25600000000000000000 _____

5. Calculate the following using the correct number of significant figures.

a) 2.34×10^{47}
+ 9.2×10^{46}

b) 9132.0
- 1.6×10^3

6. Calculate the following using the correct number of significant figures.

a) $(1.54 \times 10^{58})(3.5 \times 10^{60})$

b) $(7.9 \times 10^{34}) / (8.32 \times 10^{23})$

7. Express the following numbers in scientific notation.

a). 810,000 g

b). 0.000634 g

c). 60,000,000 g

8. State the number of significant digits in the following measurements.

a). 3218 kg

b). 60.080 kg

c). 0.000534 kg

9. Add/Subtract as indicated and round the answer using the correct number of significant digits.

a). $85.26 \text{ g} + 4.7 \text{ g}$

b). $1.07 \text{ km} + 0.608 \text{ km}$

c). $186.4 \text{ kg} - 57.83 \text{ kg}$

10. Multiply/Divide as indicated and round the answer using the correct number of significant digits.

a). $(5,108 \text{ m})(4.2107 \text{ m})$

b). $(1.67 \times 10^{-2} \text{ km})(8.5 \times 10^{-6} \text{ km})$

c). $(2.6 \times 10^4 \text{ cm})(9.4 \times 10^3 \text{ cm})$

Significant Figures – Another Worksheet Answers

1. Give the number of significant figures in each of the following.

- a) 10.0005 g 6
- b) 0.003423 mm 4
- c) 2900 ± 100 ft 2
- d) 8.9×10^5 L 2

2. Determine the answer for each of the following. Be sure to use the correct number of significant figures.

- a) 47.36
- b) -1.960
- c) 5.6×10^2
- d) 5×10^3

3. Round each of the following to 3 significant figures.

708 2.30×10^3

0.000335 10.3

19.0×10^{21}

4. Convert each of the following into correct scientific notation.

1.747×10^3

9.84×10^{-6}

3.2000×10^5

2.014×10^{-1}

2.56×10^{16}

5. Calculate the following using the correct number of significant figures.

- a) 3.26×10^{47}
- b) 7.5×10^3

6. Calculate the following using the correct number of significant figures.

a) 5.4×10^{118}

b) 9.5×10^{10}

7.

a) 8.1×10^5

b) 6.34×10^{-4}

c) 6×10^7

8.

a) 4

b) 5

c) 3

9.

a) 90.0g

b) 1.68 km

c) 128.6 kg

10. a) 21510 m^2

b) $1.4 \times 10^{-7} \text{ km}^2$

c) $2.4 \times 10^8 \text{ cm}^2$